Heart Disease Analysis Project

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Roll: 09-006-22

Batch 06
Course Name: Data Science with Python

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- **Objective**
- Analyze the heart.csv dataset to uncover patterns in heart disease data.
- Develop a predictive logistic regression model for heart disease classification.

- **Dataset Overview**
- **Key Features:** Age, Cholesterol, Chest Pain Type, Blood Pressure, etc.
- **Target:** Heart disease presence (1 = Yes, 0 = No).

- **Key Findings**
- **Significant Predictors:**
  - Age, Chest Pain Type, Maximum Heart Rate.
  - Exercise-induced Angina positively correlated.
- **Model Accuracy:** 84%.

- **Methodology**
- Data Cleaning & EDA.
- Visualization: Correlation Heatmaps, Age Distribution, etc.
- Logistic Regression: Simple, interpretable model.
- Evaluation: Accuracy, Precision, Recall.

- **Future Work**
- Test advanced models (e.g., Random Forest, Neural Networks).
- Integrate more features (e.g., lifestyle data).
- Validate on external datasets for generalizability.

Thank You